

Mental Coaching of Ice hockey goalies

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<p>This Bachelor's Thesis is a product-based work called Mental Coaching of Ice Hockey Goalies. This work was made because coaches and athletes today have a lack of knowledge in mental coaching. The goal is to create a manual that is easy to read and understand and implement into coaches' everyday work.</p> <p>This work helps coaches and athletes understand the mental side of the game; what is important and why. When understanding the basics and most essential parts of sport psychology, it is easier to add mental coaching to support the physical coaching.</p> <p>The work consists of ten different mental factors that affect performance. Those factors are Self-image, self-esteem, self-confidence, motivation, preparation, concentration, stress, anxiety, pressure and feedback. These factors are selected from my own experiences, discussions with other coaches and goalies and research.</p> <p>This work has included a game analysis form for mental coaching to follow up the development of the goalies' mental skills.</p> <p>The guide is easy to read and understand and gives goalies and coaches abilities to implement mental coaching into their everyday work. The guide is made in a way so that coaches and athletes from other sports can use it as a source of information and develop their knowledge.</p>	
Keywords	
Mental coaching, mental skills, ice hockey goalie, psychology	

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1 Introduction

“It is pretty tough for a goalie when you look at it. You’re always the last line of defence. If you let a goal in, you can’t go to the bench and hide between the guys or anything.”

- Kirk McLean, former NHL goalie

The goalies position in any sport is unique. He is the only one who is an individual athlete in the team. How the goalie plays have a huge effect on if the team has a chance to win the game or on the other hand lose the game. To be able to handle the stress the goalies position creates, the goalie has to be strong both mentally and physically. Ken Dryden, former NHL goalie, has said in many interviews that the biggest enemy for the goalie is the goalie himself and even one wrong thought can lead to a goal and the loss of the game.

Former Finnish national team player Juhani Tamminen has said many times that if the game is even, the team with the better goalie will win. This sums up well how demanding the position is. When the goalie is relaxed and on the top of his game, it seems like he is always in the right spot at the right time and the playing looks easy. On the other hand, if the goalie gives a lot of easy rebounds and the playing doesn’t seem natural, the goalie might be stressed or nervous. This can lead to crucial mistakes.

The athlete is able to play on his or her best level when there is no difference between what she thinks and what she is doing (Aidan P. Moran, 2009). It is said by many athletes and professional coaches that the performance is 90% mental and the rest 10% is physical (Jim Afremow, 2014). Still, even though we know this, we put a lot of time into physical coaching and conditioning of athletes. We as coaches should be able to specialize our training programs so that mental coaching would be involved, because right now those skills might not be practiced enough or at all.

For mental coaching to be successful, we need to understand that we all differ from each other, and what works for someone might not work for someone else. Therefore, it is important that we analyse and discuss the individual needs and after that think of a way to coach the individual mentally to fulfil his or her needs.

The main idea for this guide was to create a manual for coaches and goalies to use. I wanted to show and explain what mental coaching actually is and why it is so important. This work has included the basics to understand and implement mental coaching and psychology in sports. It has also included a game analysis form for mental coaching. The form helps to see improvements in playing when working with mental coaching.

1.1 Why I choose to make this work

For already a long time the performance of the goalie has played a crucial part of the result of the game. Many coaches had said that if the teams play an even game, the team with the better playing goalie will win. To be the better goalie in every single game and perform on their best level, they need to be strong both mentally and physically.

Too often coaches focus on physical skills and technique instead of mental coaching. This leads easily to technically really skillful athletes who perform their best in practices but aren't able to perform well in games. I wanted to figure out what factors affects the development of goalies: who will become a successful, winning goalie and who will become a practice goalie.

My goal for this work is to find ways for goalie coaches to train their goalies to be mentally stronger. I want this work to be easy to read, so that coaches can add mental coaching to their everyday work. Mental coaching has, year by year, become a bigger discussion between coaches, but many coaches are afraid, or have a lack of skills, to take mental coaching in as a part of their doing.

As a coach myself I realize quite often that I keep on coaching techniques many, many hours per week, but forget about mental skills in my coaching. I have to say that it feels stupid sometimes to see how much time we coaches spend on coaching physical skills and techniques, even though many professional goalies and goalie coaches are talking about the importance of mental skills. Many professional coaches have claimed that goaltending is 30% physical and technical, and 70% mental. Why do we still leave mental coaching outside?

When I started to study sports, I quickly realized the importance of comprehensive coaching. I wanted to quickly add mental coaching to my own coaching, but I had to find

the right tools to do it. With a little help from colleagues, I built a form for my goalies to fill in. The form kept on developing, mostly through feedback and discussions, and in the final form the questions, the factors I was interested in, were the following ones:

How did you feel before the game (preparation)?

How did you feel during second period (concentration)?

How did you feel after the game (game winning skills, mental toughness)?

Discussing these questions with the goalie, and analyzing the statistics easily showed what part the goalie handled well and what needed development. The goalies felt that the form helped them, and they liked to see results and slowly some patterns too. After doing this for a while, I wanted more coaches to use similar ways, and start mental coaching. The problem was that the other coaches did not know what mental coaching actually is or how to execute it. This led to the decision of making a guide that explains in easier words the most important factors in my opinion. These factors are self-image, self-esteem, self-confidence, motivation, mental preparation, concentration and stress. Understanding these mental factors, I believe that goalies, as well as other athletes, are able to perform, in a long-term development, on a better level and get the best out of themselves.

1.2 What is mental coaching

There are no rights or wrongs in mental coaching. I see mental coaching as ways to bring out the best in every athlete, to learn them to take responsibility of their own actions, to learn them think and to set goals. For someone it might be enough that you say, 'Hi how are you?' when you come to practices or games, whereas others need more attention. To be able to coach a successful team, trust between the coaching staff and players is needed. Trust between parents and coaches is important too. Mental coaching isn't only what happens during practices and games, but what happens home and during the time the athlete isn't at the rink. If the parents are really active, they might, without purpose, bring the athletes development backwards.

Mental coaching is not supposed to be rocket science or a myth. It is supposed to be simple; rules made together, trust both ways, goals and positive interaction (Pekka Hämäläinen, 2012). Physically, mental coaching can be seen as feedback, communication, prep-talk, calming the team down during games etc.. Petri Matikainen mentioned in 2011 during the World Championship-tournament, that mental coaching takes time and effort, but is extremely important. He said that even though mental

coaching is important, it needs physical guidelines. If the physical or mental side isn't working, the team isn't able to succeed. The better the physical part of the team is built; the better mental coaching will help the team grow and succeed.

Even though mental coaching is growing, and it is known that proper mental coaching will help the athletes and the team succeed, it is still a really small part of coaching. Mostly mental coaching is seen as something hard to learn and understand and have therefore a negative sound. When coaches start to study mental coaching more, they often realize how simple and easy it is. In the end the main idea in mental coaching is to boost the athletes' self-confidence and bring out the best of him. The last seasons the club I'm coaching, has provided the goalies and the goalie coaches chances to take part in mental coaching lessons held by Niko and Makke Leppänen (itseluottamus.com founders). The lessons have given practical examples of how to easily develop concentration skills and how to boost self-confidence. The lessons helped especially the coaches to notice that you don't have to do miracles, but instead small details and habits added to everyday coaching.

2 Mindset and psychological demands of a goalie

“Because the demands on a goalie are mostly mental, it means that that for a goalie, the biggest enemy is himself. Not a puck, not an opponent, not a quirk of size or style. him.”

- Ken Dryden

In ice hockey, as in any other sport, the goalie needs a lot of different physical skills, but more importantly a big variety of mental skills. The goalie is an individual athlete inside the team. Every mistake is seen as a goal on the board, and even one wrong thought may lose the game for his team. Therefore, the goalie has to handle many different mental skills. When the goalie is able to utilize his mental skills effectively, he is consistently in right place at the right time and is able to make saves (Ryan Gelinias & Krista Munroe-Chandler, 2006).

To be able to play on his best level, to achieve his ultimate sport performance, the goalies mind and body needs to work together perfectly (Goldberg, 1998).

Being an athlete gets more difficult all the time. The game develops and gets faster. This means that requirements of athletes get tougher all the time. When the game is faster, they need to adapt to it physically, and focus of training is usually in physical factors, especially in younger age-groups. Mental coaching has become more known year by year but is still a minor detail in coaching. After a year of research, I, together with other goalie coaches and goalies came to the following conclusion: The most important details of mental coaching for goalies according to my research are self-image, self-esteem, self-confidence, motivation, mental preparation, concentration and stress handling. Why I thought these factors are important and what they actually mean are explained in this work.

2.1 Self-image

How the athlete sees himself is an important part of developing mentally. How he sees himself physically, socially, professionally and mentally creates the whole picture of his self-image. Self-image is built by individuals experiences and understandings from all the mentioned categories. Physical self-image involves how the individual sees his own body and capabilities, i.e. strength, speed or agility. Most of the experiences come from competitions, and if the athlete feels that he is weaker than the rest of the team, it may affect his self-confidence and therefore affect his performance. On the other hand, if the athletes psychological self-image (emotions, attitude, intelligence etc.) is strong and he

has a growth mindset, he is able to understand his weaknesses and develop them in a smart way. The social self-image tells how the athlete acts and sees himself with other people and how other people see him. Especially teenagers often act differently in the team than they act home or in school. It is extremely important to be able to be yourself and be able to make your own decisions.

The factors to create ones' self-image are often partly, or even fully subconscious, especially when the athlete is young. Often teenagers are still creating their self-image, because they are still searching who they are or who they want to be. It is important to give teenagers time to find themselves. Sometimes, to take the next step towards professionalism the athlete has to change his self-image.

(Seppo Heino, 2000)



Image 1

How changes of self-image affect actions

Image 1 shows that sometimes it may seem that the athlete is doing right things, but not giving his best. This may be because his self-image is negative, and he doesn't believe that he has a chance. Better results will come only if his self-image changes. Then he can take a bigger step towards being a professional athlete. At the same time, this may change the way he is thinking and teach him new techniques and ways of training. How the athlete sees himself has a big impact in his performance. If the goalie thinks before a game that there is a chance to fail or to humiliate himself, he probably will fail. If he is able to put realistic goals to himself and thinks that a game or a competition is a great test and chance to show what he can do, he will be playing on a good level. The mindset affects already the preparation; will you warm up with a fear of failure, or are you doing your warm up with positive thoughts and hunger to show your skills. When the mindset is right, and the athlete understands that his life can continue normally even if he fails, he can grow mentally and develop. (Ani Närhi, 1998)

"Remember that we can lose, but we can win too. Even if we lose a lot of games, it is in our own hands to win the next game. We can still lose it, but we are able to win it too."

- Curt Lindström

2.2 Self-esteem

“I choose to live by choice, not by chance. To make changes, not excuses. To be motivated, not manipulated. To be useful, not used. To be excel, not compete. I choose self-esteem, not self pity. I choose to listen to my inner voice, not the random opinion of others.”

- LeBron James

Self-esteem can be defined as the description of an individual's sense of self-worth and personal value. It can involve different believes of ones' emotions, beliefs, behaviour and appearance. With extremely high self-esteem the individual can be seen as a narcissist and low self-esteem can lead to depression and a feeling of defeat (Kendra Cherry, 2017). Self-esteem can be seen basically as an individuals identity (Niko Leppänen, 2016).

Ones self-esteem, or personal value, affects directly his or her self-image and depending on the either positive or negative self-esteem and self-image it affects the individuals' self-confidence. Self-esteem can in fact have a big role in the individuals' motivation and success, both in sports and in life. Low self-esteem can stop you from succeeding, because you don't believe in yourself. On the other hand, high self-esteem gives us strength and confidence and helps us get over failure or mistakes (Kendra Cherry, 2017).

When the self-esteem is high, the athlete is able recognize his strengths and weaknesses, analyse his needs, set up realistic goals and reach them. Without high self-esteem he can't lead his own doing and is depending of others. This will slow the athletes development and in worst cases be a big reason to not be successful. If the athlete doesn't know his strengths and weaknesses, or sees them only in a negative light, he isn't able to handle feedback either. With high self-esteem the athlete is able to take both positive and constructive feedback, analyse the feedback and learn. (Eero Kukkola, 2016)

As coaches, it is important that we recognize the athletes self-esteem. If the athlete is often negative, comes up with excuses to mistakes and fails and is depending on of what others think, he probably has a quite low self-esteem. It is the coaches job, together with the athlete, to raise the self-esteem. To be able to do this, the athlete has to change the way he is thinking. This change can be done by changing the way he analyses himself, i.e. instead of thinking that “I made a mistake and we lost” he should think that “I made 6

game savers today and I enjoyed playing” or replace “I’m slow” with “I’m flexible and strong”. In the beginning towards the change, the athlete should, at the end of every day, think of three good things he did that day, focus on those three things and always when a negative thought comes in mind, replace the negative thought with the good things he did that day.

In the end, we should always just be ourselves, not anyone else. We are who we are and that shouldn’t change. Already Socrates said in the early days “To find yourself, think for yourself”. That way we are able to keep our self-esteem in balance.

2.3 Self-confidence

A lot of researches done over time has shown that one key thing between being a highly successful athlete, successful athlete and less successful athlete is his self-confidence. The best athletes know what they can or cannot do and are clear about their abilities. Of course, everyone has some self-doubt every now and then, but the athletes that are capable of believing in themselves even at bad times, are capable of performing better than athletes that don’t believe. When the athlete believes in himself and his skills, it doesn’t matter if he lets in a goal or misses the puck. In the end, he will get the job done. (Weinberg & Gould, 2011)

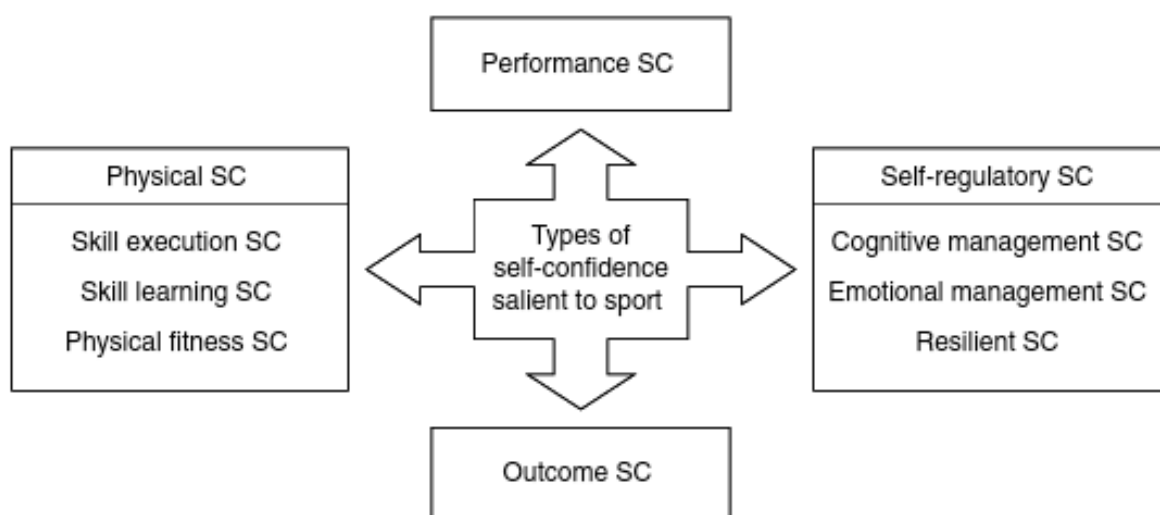
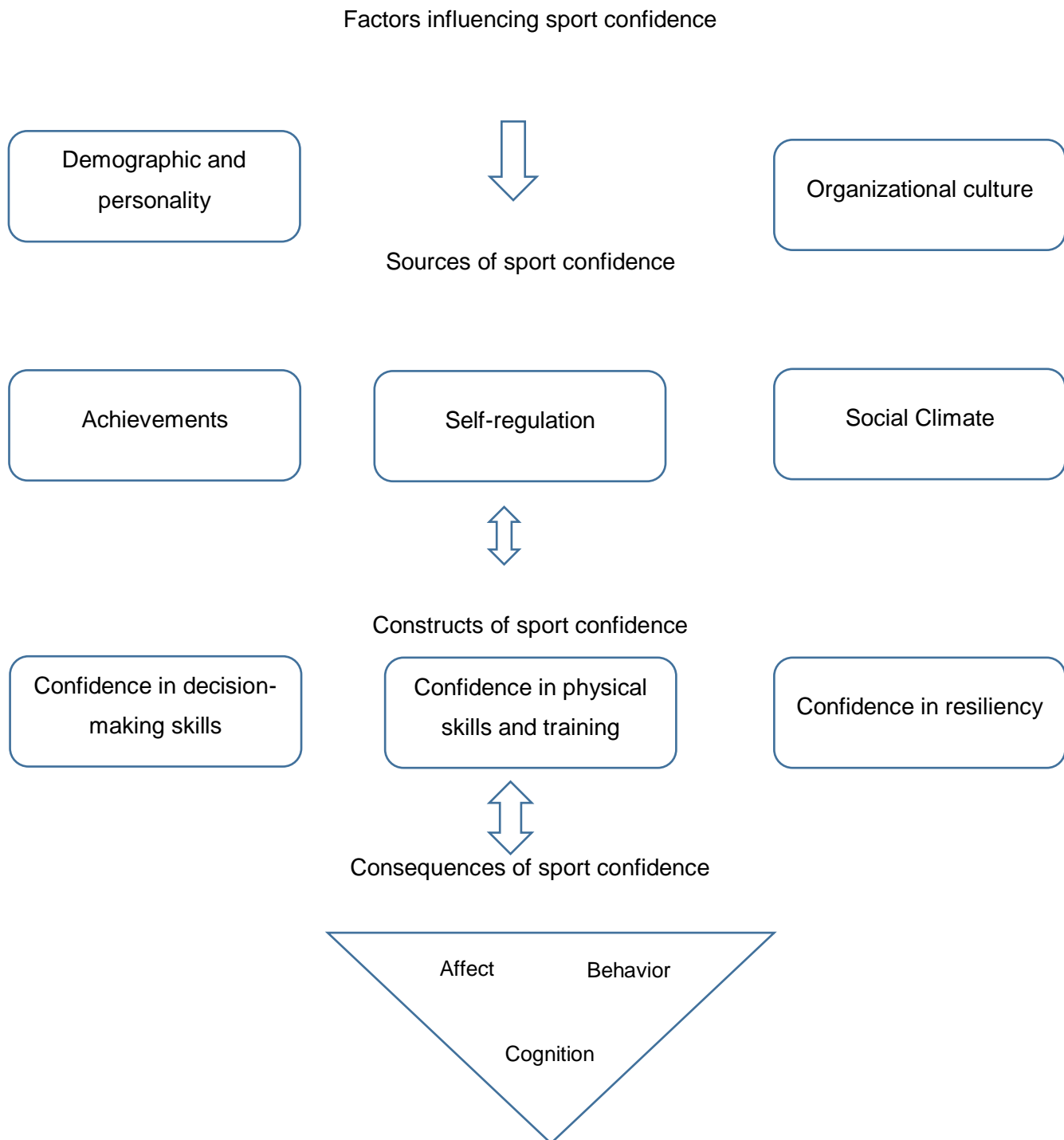


Image 2: Types of self-confidence athletes need, Handbook of Sports Medicine and Science, Sport Psychology.

Playing as a goalie in any sport requires a really good self-confidence. This is a big factor that makes the difference if you are a so-called practice goalie or a game winning goalie. A goalie can be technically brilliant, but not able to play or win tight games. On the other hand, a technically really bad goalie with a high self-confidence can play on a really high level. When the goalie plays with a high self-confidence he is able to focus only in the game, and leave out everything else (pressure, stress, chants from the crowd). When the goalie can get to that level, he is ready to play high-level games night after night. As a coach, it is our job to find the way to get the goalie, as well as other players, to that level.

There are a lot of factors that affects ones' self-confidence. It is totally individual how you handle your own head. In example, if the goalie is afraid to fail or letting the team down, he probably will make some mistakes. The fear of letting the team down is normal in youth hockey, especially when the athletes are teenagers. It is crucial to take actions when this kind of behavior is detected. Athletes that are afraid to lose or let the team down usually have a really low self-confidence and negative self-image and therefore they need lots of attention, positive feedback and someone to strengthen their confidence.



2.4 Motivation

To analyze and coach motivation, it is important to understand what motivation is and what it consists of. Robert S. Weinberg explained in 2009 that motivation can be seen as ones' direction and intensity of effort. He sees that to be a great coach, teacher or leader

you have to be a great motivator. As a skillful motivator the coach is able to get the best out of his team, to get individuals to perform on their best level or even better and get everyone to work together as a committed team. On the other side, when the individual is highly motivated he wants to develop his skills and is ready to practice getting better and reach his goals. At the same time, when the athlete has hunger to develop and get better, he requires more from the coach, which means that the coach has to challenge and educate himself to be able to help the player to get better.

On the other hand, to set realistic, reachable goals the athlete has to be ready to work towards them. Therefore, goalsetting is an important factor when discussing motivation. Robert S. Weinberg studied literature from industry and sports, and the outcome of his studies was that goalsetting may increase motivation and performance. It is though important to remember that goalsetting alone doesn't increase performance automatically. When the goals are set to be challenging enough, and the athlete has a reason to reach the goals, the performance can get better.

(Foundations of Sport and Exercise Psychology, 2007)

The goalie's motivation needs to be really high, and the sport he plays a lifestyle to him. When he is motivated and have plans and goals for the future, he is ready to work towards them. Without motivation the goalie might be able to play on a good level for a while, but motivated athletes with the right mindset will pass him in skills at some point. A big issue for goalies today is that they set their goals too high. When they set their goals too high, they create pressure to themselves. When the goal isn't reachable, and the pressure hits the goalie, he easily feels that he isn't good enough. When he feels that he isn't good, he starts worrying about easy goals, rebounds or what the others think of him. If the situation goes this far, the goalie can't be happy of his teams' success unless he plays a phenomenal game or a shutout. When continuing thinking critically of everything he is doing the level of motivation might drop and this can lead to a situation where the goalie doesn't want to play anymore. To avoid this, it is important to have discussions with the goalie and help him set goals. This way the coach can make sure that the goals aren't set too high but are still challenging to reach. An easy way, that I myself use, is to set short term goals as a road towards a bigger goal. This eases the follow up of development and keeps the goalie motivated. One thing to remember both as an athlete and as a coach is that we shouldn't focus only on the outcome because the outcome goals are not under one person's control. (Robert S Weinberg). It might be that the goalie's development is great, and he reaches all his goals, but another goalie develops even more or is having a great season and therefore beats him. This doesn't take anything away from the goalie, it is just on-going competition.

Robert S. Weinberg created a list of four reasons why goal-setting works. First of all, goals provide direction and makes the athlete focus on the actions to get there. Secondly, goals increase the efforts that the athlete makes. Without goals the athlete doesn't have a clear road and doesn't know what he has to do to develop. The third reason is, in his words, that goals prolong performer's persistence. As an example of this he used a person that wants to lose 20kg of weight. As one goal this seems like a lot, but if the 20kg is broken down to for example 1 kg per week, it is easier to manage and feels more confident to achieve. The last reason he lists is that setting goals makes the athlete change her training routines and forces the athlete to learn something new. This keeps the interest towards training high and the athlete stays motivated.

2.5 Mental Preparation

Mental preparation is often discussed before games and after games but is hard to actually define. Often, in the locker room before the game and before the warm up you might hear the coach tell his team to get ready, to get their game face on. Why doesn't we coaches demand the same thing before practices? Can we be more prepared in competitions or games if we practice mental preparation in normal practices too? Is mental preparation even important? This part will open up the importance of mental preparation and gives a couple of examples how to prepare. It is though important to remember that there is not a one single way that would work for everyone.

Mental preparation can be seen in a lot of different ways, for example what the athlete is doing himself before a game to get ready for the performance (Daniel Gould, 1999). The mental preparation can consist of anything between listening to music and motivational speeches. For the goalie especially, it is important to make sure he is ready from the first puck drop. Even if the rest of the team isn't ready to play, a winning goalie has to be able to carry the team. How the goalie gets ready, is up to him. The habits the athlete or goalies performs during his warm up might be habits that has followed him for years. They make him get his mind right for the performance and gives him comfort to play in the right psychological state and achieve his best performance.

A Russian sport psychologist Yuri Hanin studied and did research about athletes individualized zones of optimal functioning (IZOF) for decades. His research showed that every athlete has an emotional pattern that leads towards his optimal performance. This means that an athlete can reach his optimal performance, his "zone", when he is

aggressive, and another athlete reaches his optimal performance when he is calm or anxious. Simplified, the main idea of mental preparation is to enhance self-confidence.

Ways of preparation are as many as there are athletes. Someone wants to listen to music and have his own peace, whereas someone else might want to joke around in the locker room to get his mental stage right. Some athletes want pump up-speeches, some athletes like to watch videos of goals, hits or saves to prepare and for someone it is best to do visualization. It is up to the athlete, whatever feels good to him! If the athlete is always very nervous before games or his performance, you as a coach should take his thoughts off from the game. Tell him jokes, make him watch funny videos, just something so that he doesn't think about the game. That will help him to be less nervous when it is time to start the performance!

2.6 Concentration

"I have learned to cut out all the unnecessary thoughts on the track. I simply concentrate. I concentrate on the tangible – on the track, on the race, on the blocks, on the things I have to do. The crowd fades away and the other athletes disappear and now it's just me and this one lane."

-Michael Johnson, 400m runner

An important factor to be successful is the ability to be able to focus on the task you are doing and ignoring everything else. This factor can be the difference between winning or losing. (Aidan P Moran, 2009) An ice hockey game last at least 60 minutes. This is a long time to stay focused. The players might lose their focus at some point of the game and that might end up in a penalty or icing. If the goalie loses his concentration, it might cost the team the win of a game. A wrong thought at the wrong time might end up in a goal. Therefore, the goalie cannot lose his mind at any point. So, what is it that happens in our mind when we focus, or when we lose our concentration?

Concentration is a really fragile thing, and when it's lost, it is extremely hard to get back. To show how fragile the mind and focus is, Aidan P Moran used an example of everyday life. Have you ever walked into a room in your house with the purpose of looking for something, but exactly at the moment you open the door you forget what you were looking for? After forgetting what you were looking for it can take a long time to remember again.

To answer the question of why an athlete loses his concentration during performance, we have to understand that there are factors that can easily distract the athlete.

Distracting factors can be divided into two bigger categories – external distractions and internal distractions. External distractions are situations where the environment gets the athletes focus off the target. Internal distractions can be anything from the athletes' own thoughts to his emotions or feelings at the moment, and throughout that the athlete loses his focus. (Niko Leppänen, Makke Leppänen 2017). For the athlete, the external factors can be things such as the crowd yelling, other athletes chirping or the shape of the ice or rink. Internal distractions can, as said, be anything that happens inside the head or how the athlete feels. A big factor in this category is predicting the game inside your head. If the goalie predicts that the opponent is going to score, the opponent probably will score. On the other hand, worrying of something that happened earlier in the game instead of what is happening at the moment, the concentration is on something else and this can lead to crucial mistakes.

What can the athlete do to practice his concentration? I went to a seminar in 2017 held by the founders of itseluottamus.com, Niko Leppänen and Makke Leppänen. At the seminar we did practices to try our concentration skills. One good practice was to take an object, a tennis ball for example, and stare at it for one minute straight. Every time we lost our concentration, we had to start the minute from the beginning. When we were able to concentrate on the ball for one minute without thinking of anything else, the next challenge was to get to two minutes. I feel like this a really good example of training the mind. As said before, an ice hockey game last 60 minutes, and the athletes, especially the goalie, have to be able to be focused the whole time. By increasing the amount of time not focusing on anything else but the puck, the goalie increases his chances of performing well.

Concentration towards the performance starts already before the performance. Therefore, routines are important to have, so that the athlete gets himself to the right mode and gets him to feel confident. When the athlete puts focus on the routines, he doesn't worry about the upcoming event and the focus is set on right things. It is important to remember that routines shouldn't be controlling, but more helping. The routines shouldn't affect the performance or thinking too much, meaning that if the athlete departs from his routines, he should still be able to perform well.

It is important to remember that concentration doesn't come automatically. The athlete has to make a decision to concentrate, and he can focus on one thing at the time. When

the athletes' actions and thoughts are exactly the same, he reaches a state of flow and full concentration. For goalies it is easy to notice if he is able to concentrate throughout the game. When he has hard time catching pucks and he gives a lot of rebounds, there might be something on his mind. When he gives a lot of rebounds, his self-confidence might drop down and usually he starts to focus on wrong things. This can lead to easy mistakes and cheap goals. To get over this stage, the goalie has to understand that he cannot worry about things that are not under his control. Understanding this, he can learn to empty his head and re-focus. (see Image 4)

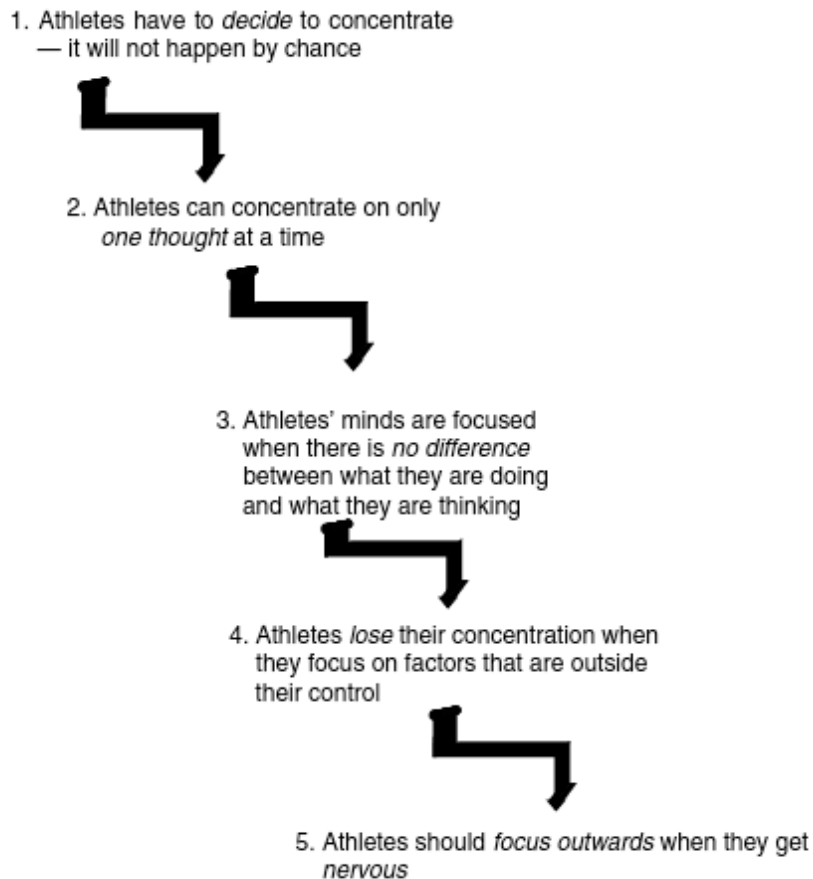


Image 4

Concentration is a decision. Picture taken from Handbook of Sports Medicine and Science, Sport Psychology, Page 24

As image 4 shows, concentration doesn't come automatically. To be able to concentrate the athlete has to make the decisions to focus. When the decision of concentrating is done, it is up to the athletes concentration skills to keep the focus. The athlete will lose his focus if he starts to think of factors that are out of his control. To get the focus back the athlete has to understand and know that the can only focus on one thought at a time.

2.7 Being a part of the team

The goalies' role in the team is important. He has to be mentally the strongest one and always ready to play on high level. Former national team player for Finland, Juhani Tamminen, has said many times that if the game and the teams are even, the team with the better goalie wins. The truth is that the goalie alone can win or lose the game and therefore he gets a lot of attention, especially from the fans. Is the goalie actually a single athlete in the team or what is his role?

The goalies work mostly alone. They have usually their own coach and they practice without the rest of the team time to time. They often have their own routines and in many teams the goalies are closest team mates to each other, even if the competition of playing time is hard. In soccer, the goalie is often the captain of the team, and in ice hockey the goalie might be the leader outside the rink. This is based on the toughness of the position and the skills required to be able to play as a goalie.

When the goalie is calm, confident and well prepared he is able to lead the team, help the players (especially in the defensive zone) and keep the game under control for his team. To be able to be the leader of the team, the team spirit has to be good and the goalie liked in the team. How the goalie is seen by the rest of the team might affect his self-esteem, positively or negatively. The most important thing is that the goalie, as everyone else in the team can be themselves and doesn't have to worry about what others think. Every individual in the team have to be able to trust one another.

3 Stress

Stress is a factor that everyone experiences at some point of their life or career. Stress can be created from work, school, relationship, money, sports etc. Basically, stress can come from anything that worries a person. Stress can come in different forms. A person can feel good stress, bad stress, anxiety or pressure. In sport, as in life, the way the person handles stress affects the individuals career and life. For someone stress can lead to sleeping or drinking problems, whereas for someone else stress can be a factor that keeps him on alert and gives motivation.

Stress is usually explained to be something that the person feels like he cannot achieve, a threat towards the individual or a feeling of losing (H. Selye, 1963). When stress is managed right, it can be a motivator for the individual. On the other hand, if there are too many stressors at the same time, it can affect the individuals physical and psychological health and become harmful for the individual. Short-term stress can be helpful, because stress prepares the body to face danger, but long-term stress affect individuals health negatively (Christian Nordqvist, 2017).

For athletes' stress (short-term) can be helpful. Stress keeps the athlete alert and ready for performance. Stress makes the body produce cortisol, adrenaline and noradrenaline. When these chemicals are produced, the individuals heart-rate increases and prepares the muscles for performance. Without stress the athlete might be too relaxed and he or she might not be fully prepared to perform (Christian Nordqvist, 2017).

American Psychological Association (APA) divides stress into three major categories; acute stress, episodic acute stress and chronic stress. Acute stress is short-termed and the most common type. Acute stress is caused by something that has just happened or is upcoming in the near future. Episodic acute stress is created when the individual feels acute stress often (frequent stressors). Chronic stress is the most harmful type of stress. Acute stress and episodic acute stress can turn into chronic stress if last for a long period. Chronic stress means that the individual cannot find a way out or find a solution. This can be caused i.e. from a traumatic experience. People with chronic stress have a higher risk of heart attacks, strokes and violent actions and can lead to burn out or suicide.

Stress can be managed in different ways. It is important to notice symptoms of stress in the athlete. If he suddenly starts to be more tired, is sick more often, frequent headaches, the level of performance drops or starts to be more nervous before performance we as

coaches have to react. Often it might help to just sit down and talk, set new, realistic goals and set a plan for follow up. Stress can also be managed by proper nutrition, time management, prioritizing and throughout relaxation and breathing (i.e. yoga, mindfulness or meditation) (Christian Nordqvist, 2017).

3.1 Good stress versus bad stress

As said before, stress can be either harmful or beneficial for us. Especially for athletes stress can become a positive force that keeps the athlete focused, alert and at the top of his game. To make sure that we can use stress as a positive force, we need to know what the stressor is, how we view it and how prepared we are to meet stress.

Often when we talk about stress, it has a negative sound. We see it as a dangerous thing that can only harm us. In fact, stress is a really simple psychological mechanism. It is a response when we feel danger or when we are threatened or upset. Stress is our body's way to protect us and make us ready to meet the danger. For athletes, as for people in every day actions, stress can help to reach goals and meet challenges, but only until a certain point. This point comes to question when the individuals allostatic load (the cumulative total of everything that causes mental, physical or emotional stress) gets too big and the individual can't handle it anymore. (Brian St. Pierre, 2015)

To know when stress is good or bad for us, we need to understand what they mean. Good stress, or eustress, will push the individual out of his or her comfort zone but in a good way. This will open a chance for the individual to learn, grow and get stronger (develop). Eustress is always short-term (minutes to some hours), infrequent, motivating and might be a part of a positive event in life. To understand the meaning of good stress, think of a nice workout at the gym. You work hard, it might not feel good, but after an hour or so you are done and feel good. This is called good stress. Now think of the same workout, but you have to do it for 4 hours/day every day of the year, doesn't feel that good anymore. The feeling you get of this is bad stress, or distress.

Distress last longer than eustress. Distress is chronic and is ongoing all the time. Instead of motivating you, it depresses and paralyzes you. Distress will eventually break you down. Distress is always harmful for the individuals' health. (Krista Scott-Dixon, 2015)

To make sure we stay in good stress, we need to know our own limits. We should never have too much going on at the same time. When starting to feel stressed out, grab a paper, sit down and write down all the things that you stress about. When you have

everything on paper, you are able to see what is important and what can be cut out. This way you are able to make sure your allostatic load is in balance and you stay healthy.

3.2 Anxiety

“Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure.”

- American Psychological Association (APA)

We all feel anxiety every now and then in life. Normal feelings of anxiety can come from for example money, health, family/relationship or sports. Symptoms of anxiety can be raised heartbeat, sweating or nausea. These symptoms are often short-term and disappears quite fast. In sports a small feeling of anxiety can be normal. When the body prepares for the so called ‘fight-or-flight’ mode, it releases more adrenaline and can get the athlete more prepared and alert for the performance. (S. Hanton & O. Thomas, 2009)

If the duration of anxious feelings begins to get longer and longer, or the individual starts to feel anxious more often, we might be talking about anxiety disorder. Symptoms to anxiety disorders can be increased blood pressure and nausea during the feelings of anxiety. The APA classifies anxiety disorders into seven different categories. These categories are Generalized anxiety disorder (GAD), panic disorder, phobia, social anxiety disorder, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD) and separation anxiety disorder. Recognizing the correct type of anxiety disorder can help us coaches (and team mates) take action and help the individual.

Type	Description
Generalized anxiety disorder (GAD)	<ul style="list-style-type: none">- Long-lasting, chronic, most common- Non-specific event, situation or object- Sometimes hard to identify the cause of anxiety
Panic disorder	<ul style="list-style-type: none">- Sudden attacks- Can lead to shaking, nausea, breathing difficulties, confusion or dizziness- Usually after frightening experiences

	<ul style="list-style-type: none"> - Can lead to changes in behaviour to avoid future attacks
Phobia	<ul style="list-style-type: none"> - A fear of an object or situation - Related to a specific cause - Triggers can be a situation, animal or everyday object
Social anxiety disorder	<ul style="list-style-type: none"> - A fear of being negatively judged by others or public embarrassment - Stage fright, fear of intimacy, fear of humiliation - Can cause people to avoid public situations and contacts with other humans
Obsessive-compulsive disorder (OCD)	<ul style="list-style-type: none"> - Thoughts and actions that are repetitive - May be obsessive about i.e. cleaning, personal items, checking the locks etc. - Unreasonable and irrational
Post-traumatic stress disorder (PTSD)	<ul style="list-style-type: none"> - Caused by previous trauma - Often leads to flashbacks - Changes in behaviour to avoid triggers
Separation anxiety disorder	<ul style="list-style-type: none"> - High levels of anxiety when being separated from a person or place that provides safety - Sometimes panic symptoms

Image 5. 7 types of anxiety disorder according to APA

Image 5 shows the 7 types (according to APA) of anxiety disorders and short descriptions of the disorders. It is important to recognize changes in behaviour to be able to recognize the reason. In sports, if the athlete i.e. takes a hard hit and gets badly injured, he might be afraid of similar situations when he is recovered and back playing. He might stop going to corners or small areas to avoid being hit. This affects his playing crucially.

If the goalie lets in goals from similar situations in many games in a row, he might start being a bit afraid of those situations. When he feels scared, his self-confidence might drop, and this again can lead towards more pucks behind his back. If the goalie or his coach is able to recognize these situations, it is easy to find self-confidence back throughout practice. The longer the situation takes to recognize, the harder the recovery will be.

3.3 Pressure

“Pressure is a word that is misused in our vocabulary. When you start thinking of pressure, it’s because you’ve started to think of failure.”

- Tommy Lasorda

In sports, you can often hear coaches talk about managing pressure. Why would we have to manage something that actually doesn’t exist? When we try to manage pressure, we create an image that pressure is something real, something we have to think of and manage. Pressure is created in our minds when we start to imagine what happens if we don’t achieve what we want or what we think the others expect from us. (Beilock, 2010)

Pressure and expectations is usually towards something that is happening in the future, or what might happen in the future. Our imagination is extremely powerful and when we start to think more of the future than the reality, we start to create pressure. We should try to keep our thoughts in reality and the ongoing moment instead of fantasy, imagination and the future. As coaches we should focus on having hopes of the development of the athlete or the result of the game. When we start to have expectations of the athletes and the outcomes, we lead the athlete towards pressure. (Simon Hartley, 2011)

If we come to the situation that the athlete feels pressure, we have to find a way to deconstruct it. We should remind the athlete that there isn’t, or never was any pressure. Once we realize that we don’t have to worry about the future, but live in the moment, the feeling of pressure should drop off. It is important to remember that the athlete or the team should not think of the bigger picture, for example winning a championship, but more of a single game, a shift, and focus on doing the best we can at that moment. For the goalies this means focusing only on one puck, one situation and not worry about the future or the past.

3.4 Feedback

“We all need people who will give us feedback. That’s how we improve.”

- Bill Gates

Every athlete need feedback to develop. How the coach gives the feedback has a big impact in how the athlete will process it. Coaches have to remember that positive feedback is as important as constructive feedback. It is also important to teach the athlete to think and analyze himself. If the goalie doesn't learn how to analyze himself, he will have problems when he comes to a situation where he doesn't have a goalie coach, or he isn't available for a time. At the same time, if he can't analyze himself and his playing, he will most likely focus on negative factors, and analyze his games only through goals he lets in. When he thinks this way, the games where he let in a few or none goals where good games and games where he let in more goals are bad games, no matter what the result of the game was. In the end, the only thing that matters is if the team wins or loses.

It is important to know the difference between giving feedback and praising the athlete. Praising the athlete by saying i.e. "Good job, you did very well out there today". We all want to hear that if we succeed, but in the end, it just gives us a boost of our self-esteem. In the long run it doesn't make us better athletes or coaches and the goal is to get better. Therefore, we have to understand that giving proper feedback is extremely important to get better (Gregory Ciotti, 2015).

If the praising just boosts our self-esteem, then what is good feedback? To be able to give feedback, the coach has to be alert. He has to be able to see single situations in a high-tempo game. When he is able to this, he can analyze the individuals performance on a deeper level, find mistakes and things that could be done more effectively or better and discuss these things in a constructive way. This helps the athlete understand his mistakes or lack of knowledge and help him develop and learn (Gregory Ciotti, 2015).

Ron Gallimore and Ronald Thrup, two psychologists, studied a legendary basketball coach, John Wooden. They analyzed everything the coach said during practices and games. During the time they did the study, they recorded 2362 moments of teaching. Of this amount, 6,9% were straight compliments to boost the self-esteem, 6,6% were negative comments and up to 75% were information of what, how and when to do. (Daniel Coyle, 2009)

If we are in a position of being able to give feedback, we have to make sure we give proper feedback that helps the target of the feedback develop. Praising every now and then is good, but proper feedback is more important for development.

4 Game analysis form for mental coaching

When starting mental coaching it is important to create a plan. When you have to plan, you have to have a way to follow up the development of the goalie. This form I created helps the goalie and the coach to find weaknesses and strengths on the mental aspects of the game. To be able to fill in and analyse the results, the person who fills the form should have an understanding of goaltending. The coach can fill in the form at the same time he is watching the game, or he can use the help of another goalie in the audience.

The form is really easy to use and gives a good overall picture of the goalies' mental skills. By using this form, the coach gets a lot of data that is easy to analyse. It is important to remember that it isn't enough to just fill in the form. The results should always be analysed with the goalie and find patterns in his doing. When finding the ways the goalie works and the patterns in his games, we have a good opportunity to develop the goalie mentally too. I use this form in every game and the goalies have felt that it is a good tool to use, they don't feel pressure of filling the form and have learned to analyse themselves on a deeper level than before.

4.1 Idea of the form

The main idea of the form is to give the coach and the goalies a tool to follow up the goalies' mental development. The form helps the goalie to develop his or her mental skills and helps them understand what skills are needed to be a successful ice hockey goalie. The form is built so that it is easy to fill in, have included the important mental skills and gives a trustworthy picture of the strengths and weaknesses of the goalie.

I believe that the form is useful and helpful for all the goalie coaches out there. It can be adapted to different game situations or even different positions (forward, defenseman...). As mentioned earlier, mental coaching isn't supposed to be rocket science. This is an easy way to follow the goalies' mental development, is a helpful tool to support feedback and learns the goalie to think and analyse himself.

4.2 Benefits of the form

The form gives trustworthy statistics, useful information and an easy way to follow the goalies' development. When getting information throughout this form, the goalie and the coach can find weaknesses and start working on them quickly. It is important to remember that to have proper statistics, one game isn't enough. When using this form, the coach and the goalie should use it in every game. Already after a few games you can start to find similarities and patterns,

4.3 Usage of the form

The form is used during games, either by the goalie coach or someone else. The form is divided into two different categories;

The first part the observer/goalie coach fills in

The second part is the goalies' self-evaluation

To get the best possible result, the observer should be the same as often as possible.

The first part the observer fills in during the game. He needs to be alert from the start, because the form has included different parts of the game to follow. The second part the goalie fills in, one part after the first period, one part after the second period and the rest of the form after the game. This way we can make sure that he analyses the current feeling and the result of the game doesn't affect his analysis. When the goalie has filled in the form, he takes his equipment off and about 10-15 minutes after the game has ended the goalie and the coach has a feedback session.

In the first part the observer fills in how many goals the goalie let in in the first 5 minutes of the game. The second part the observer fills in how the body language of the goalie was in the first 5 minutes, simply + if he looked confident and – if he seemed unprepared.

These two first questions measure game preparation.

In the third part the observer fills in how many goals the goalie let in during the last minute of the first and second period. In the fourth part the observer fills in how many goals are scored inside 2 minutes of each other. These two parts measure concentration skills.

In the fifth part the observer fills in how many goals are scored in the last 3 minutes of the game. This part measures confidence and stress management.

The goalies' self-evaluation has five parts. In all five parts the goalie analyses himself on a scale from 1 to 4, where 4 is best and 1 weakest. The scale is built so that the goalie has to decide if he was strong or weak, he can't choose in between.

The self-evaluation is built so that the goalie analyses how he felt before the game, during first period, during second period, after the game and how he kept his concentration controlled. It is important to make sure the goalie fills in the parts after every period. This way we get the best possible result.

5 Empirical part

5.1 Planning

3 years ago, I got fascinated by a former student, Simo Vehviläinen, thesis about mental training for goalies. That was the first time I actually started thinking about mental coaching and psychology in a bigger picture. I started to reflect back to my own playing career and what I had felt while playing. I realized that I had a quite good picture, but what I didn't have was the skills and knowledge to put mental coaching into action. I went to some seminars and interviewed goalie coaches and goalies. I started reading books and researches, articles and interviews, listen to seminars etc. to educate myself. Fast I noticed that this is something that isn't common in Finland yet.

I discussed my findings with other goalie coaches and they got excited when I told them that I want to make a manual for all of us to use. At that point I knew what I wanted to write down, what mental factors I wanted to put my focus on. I decided to study and explain 11 factors that I believe will help goalies get mentally stronger and play better. These factors were self-image, self-esteem, self-confidence, motivation, preparation, concentration, stress, anxiety, pressure and feedback.

When I had decided the factors I wanted, I made a plan of how I wanted the manual to be. I wanted to make the manual so that it is easy and understandable for both goalie coaches and goalies. When discussing with goalies and goalie coaches I noticed that the factors I had chosen were familiar to them, but they didn't know what they actually mean. This became the guideline to my work.

To give best possible tools for coaches and goalies to use, I wanted to add the form I have used during games to support the readers coaching. This way I could give information about important factors in mental coaching and a tool to follow up the mental development of the goalie. I hope that the tools I included into this works helps more coaches to start mental coaching.

5.2 Implementation

This guide has included all the most important factors of an ice hockey goalies' psychological coaching. I wanted to create a manual that can be used by anyone and in any age group. The manual gives a look into sport psychology and is built so that it is easy to follow.

After the forewords the manual is built up by theoretical part of the 11 mental factors that I saw as the most important ones for an ice hockey goalie. After the theoretical part the manual continues with a mental coaching platform for games to follow the goalies development in mental skills. The form consists of the coaches part and the goalies self-evaluation.

I started studying mental coaching from books, articles, lectures etc. I wanted more information of psychology in sports, and ways to take in to my coaching. I had quite a few discussions with the head of coaching in the team, with my goalies and with my boss. Together we started to plan a way to follow certain factors, and the follow up took a lot of changes along the road. Finally, we got a form that followed the goalie's preparation, concentration and pressure handling. The form was easy and quick to fill in and became quickly a normal everyday habit. After the testing period with my own goalies (3 months) I moved on to other age groups too. The form was taken in to action with positive thoughts and I got a lot of data. During the testing period I decided that this theme is something I want to bring to goalie coaches in a bigger scale. I wanted to create a manual that is easy to understand and adapt to one's own coaching.

5.3 Outcome

Mental coaching is a crucial part of training in today's sports. The audience require more every year, salaries are higher all the time and sponsors expect a lot from the athletes. This builds a lot of stress. To be able to handle the stress, the athletes need to be mentally strong. I see, that the earlier we coaches start to teach the athletes on the psychological side too, the easier it will be for them to face stress and pressure in sports and in life. The fact is that no matter what you do, some psychological factors will always be involved. During this work I feel like I created a working, easy to read manual for goalie coaches on any level. This work has included all the factors that the goalies I worked with, researches, books articles and seminars concluded to be important.

One issue is that the area of mental coaching and psychology is really wide and there is not a single way or habit that works for everyone. I tried a lot of different things to get to the factors that I involved in the work. In my opinion, the most important thing during this project was to see the athletes start to be able to think themselves and analyze their own doing. At the same time they learned this, their self-image developed towards a more positive image, their goals got more realistic and they were more relaxed and happy. The positivity lead to better results and a faster development.

The work came out as I wanted it to be. The factors I saw important are explained in an easy way and with practical examples. I believe this work will help to understand mental coaching and increase the knowledge and use of mental coaching, especially in junior-hockey.

6 Summary & Discussion

The object of this work was to create a short, easy to read and helpful manual that both coaches and goalies can use. The idea was to create a manual that simply explains the mental factors my research showed important. Many coaches have realized how helpful mental coaching can be, but lack of knowledge blocks them from teaching it. With the help of this work I believe that goalies can challenge the coach more and that leads towards new learning.

I believe, that if we start to put time and effort into mental coaching, the level of high-level goalies will increase. I have witnessed too many skilled goalies quit playing because they are not able to be good in games. Finland has a lot of good goalies and goalie coaches, but somehow, we haven't been able to produce as any high-level professional goalies for international level as we have before. I think this is because we create "pressure" to ourselves because Finland is the country of great goalies and the expectations of our goalies are always high. If we can teach the goalies to be mentally stronger and they learn how to handle stress and stressful situations, we will have more international-level goalies. I believe this work will help especially junior-level coaches to start mental coaching earlier than before.

The issue when writing a work like this is that psychology is a really wide subject. Time to time I had issues to keep the work simple. I wanted to add theory as much as possible, but in an easy way. I noticed early enough that psychology and simple doesn't go hand in hand. It was really difficult to decide how deep into a subject I wanted to go so that the work still would be simple for a coach that has never done mental coaching. Another issue that we have to keep in mind and what makes a manual like this hard to make, is that we are all individuals, and no one can create a manual or tool that works for everyone. We are all different kinds of athletes and different kinds of persons. We work in different ways, make different decisions and have different styles. When doing mental coaching, we simply have to try our way to the result.

I feel like this work came out at a good time. Mental training and coaching has become more popular year by year, and teams and coaches have started to pay more attention towards mental coaching. I strongly believe and hope that this work comes to use and clarifies important mental aspects; what they actually mean and how they affect us. This

way we can find new ways of thinking and new tools that coaches and goalies have found working. I think that mental coaching will still grow a lot. Today many professional teams already have started to use psychology in coaching, and I hope that the same thing will happen in juniors too. The earlier we start mental coaching, the easier it will be for the athletes to learn, and they will be readier to play on high levels. I hope that this manual will reach out to the goalies too so that they can start practicing mental coaching on their own too. If this manual can help to give more knowledge to coaches and goalies, and help them develop, the manual has fulfilled its idea.

Personally, I am happy in the result of the manual. I think it is easy to read and understand, it has all the important factors involved and it isn't too long. I think that the work gives the theoretical aspects in an easy to read way. During the writing I found a lot of new ways of thinking for myself and developed my knowledge of psychology and mental coaching. The writing and studying has helped me take more details and depth into my coaching and has helped me coach especially young goalies (12-14 years old) mentally. It is extremely satisfying to see young kids understand quite difficult things and to see them grow and change mentally. I believe breakthroughs like the ones I have witnessed will help the goalies both in ice hockey and in life.

Finally, I want to say that writing this work was very interesting and inspiring. It gave me a lot of tools and knowledge to teach to other coaches and goalies and to my own coaching. One thing is sure. I will continue studying this area of coaching and develop tools to mental coaching. I will continue using mental coaching as a part of my everyday coaching, and I believe that will give good results in the development of goalies.

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8 Attachments

8.1 Attachment 1: Game Analysis form for mental coaching

Game Analysis, mental coaching

Name:	Date of game:
Game:	Result of game:

1. Goals during the first 5 minutes_____
2. Body language first 5 minutes:
3. Goals against during last minute of 1 & 2 period_____
4. Goals within 2 minutes of each other_____
5. Goals against during last 3 minutes of game_____

Goalies Self-evaluation

Feeling before the game 1 2 3 4

- How did you feel before the game started, 1 weak, 4 strong

Feeling in first period 1 2 3 4

- How did you feel during the first period, 1 weak, 4 strong

Feeling in second period 1 2 3 4

- How did you feel during the second period, 1 weak, 4 strong

Feeling after the game 1 2 3 4

- How did you feel after the game, 1 weak, 4 strong

Concentration 1 2 3 4

- How well did you keep your concentration throughout the game, 1 bad, 4 excellent